UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,676	06/24/2003	Shinichi Kamoshida	Q75494	7252

23373 7590 09/09/2005

SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER	
DICUS, TAMRA	
ART UNIT	**PAPER NUMBER**
1774	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/601,676	KAMOSHIDA ET AL.	
	Examiner	Art Unit	
	Tamra L. Dicus	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) *6 and 7* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6-24-05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

15

e

DETAILED ACTION

Acknowledgement is made of the IDS and the election of Group I, claims 1-5 without traverse.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 3 is not clear because the conductive dots that make up the low-resistance layer in claim 1 are positioned on top of the low-resistance layer in claim 3. It is not clear if there are additional conductive portions/dots over claim 3 as in a separate layer or in a single low-resistance layer as in claim 1, as Applicant refers to the same dots in claim 3 (e.g. said large number of conductive portions).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,315,061 to Suzuki et al.

Suzuki teaches an image carrier (Suzuki, 30, Fig. 3 and associated text) used in an image forming apparatus comprising a dielectric layer (32, Fig. 3 and associated text), wherein charge is transferred between said dielectric layer and a charge-transfer controlling means so as to apply charge to said dielectric layer (via a roller, 22, Fig. 3 and associated text), wherein said dielectric layer has a low-resistance layer formed on the outer surface thereof, said low-resistance layer comprises a large number of conductive portions (dots 34, Fig. 3 and associated text consist of a layer of dots), charge is transferred between said conductive portions and said charge-transfer controlling means so as to apply charge to or remove charge from said conductive portions, and said conductive portions are arranged to be dispersed separately from each other (see 34 and 16 spacing in Fig. 3 and associated text).

Regarding instant claim 2, Suzuki teaches an image carrier used in an image forming apparatus as claimed in instant claim 1, wherein said conductive portions are a large number of dots which are dispersedly arranged (there are more than one or two number of dots dispersedly arranged, meeting "a large number", seen in Fig. 3).

Regarding instant claim 3, (interpreted as dots having conductive portions making up a single layer) Suzuki teaches an image carrier used in an image forming apparatus as claimed in claim 1

or 2, wherein said large number of conductive portions are at least partially exposed on the surface of said low-resistance layer (see 34 and 16 spacing in Fig. 3 and associated text).

Further regarding claim 3, (interpreted as a separate layer on top of the low-resistance layer), Suzuki teaches additional conductive dots 16 on top of dots 34 seen in Fig. 3, thereby forming an additional conductive layer.

Regarding instant claims 4 and 5, Suzuki teaches the same materials are provided in the same layers. Suzuki does not explicitly state the electric resistance relationship and what the thickness range is to be set. However, how one chooses to measure the same material whether in planes or thickness is intended use and is given little patentable weight as it does not does not differentiate the claimed structure from a prior art structure satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). See further Fig. 7-9, col. 4, lines 5-60, and col. 6, lines 25-35.

6. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,407,763 to Yamaguchi et al.

Yamaguchi teaches an image carrier (Yamaguchi, 10, FIG. 1 and associated text) used in an image forming apparatus comprising a dielectric layer (16 or 14, FIG. 1 and associated text), wherein charge is transferred between said dielectric layer and a charge-transfer controlling means so as to apply charge to said dielectric layer (via a printing electrode, see Abstract), wherein said dielectric layer has a low-resistance layer formed on the outer surface thereof, said low-resistance layer comprises a large number of

conductive portions (dots 18 and 20 FIG. 1 and associated text consist of a layer of dots), charge is transferred between said conductive portions and said charge-transfer controlling means so as to apply charge to or remove charge from said conductive portions, and said conductive portions are arranged to be dispersed separately from each other (see 18 and 20 spacing in FIG. 1 and associated text).

Regarding instant claim 2, Yamaguchi teaches an image carrier used in an image forming apparatus as claimed in instant claim 1, wherein said conductive portions are a large number of dots which are dispersedly arranged (there are more than one or two number of dots dispersedly arranged, meeting "a large number", seen in FIG. 1).

Regarding instant claim 3, (interpreted as dots having conductive portions making up a single layer) Yamaguchi teaches an image carrier used in an image forming apparatus as claimed in claim 1 or 2, wherein said large number of conductive portions are at least partially exposed on the surface of said low-resistance layer (see exposed dots within the low-resistance layer, 18 and 20 spacing in FIG. 1 and associated text). Further regarding claim 3, (interpreted as a separate layer on top of the low-resistance layer), Yamaguchi teaches a nickel plated coating is provided on top of the conductive dots (col. 23, lines 9-20), thereby forming an additional conductive coating.

Regarding instant claims 4 and 5, Yamaguchi teaches the same materials are provided in the same layers by the same charge injection method (col. 6, lines 35-40) as in Applicant's specification (e.g. page 5, lines 1-2). Yamaguchi does not explicitly state the electric resistance relationship and what the thickness range is to be set. However, how one chooses to measure the same material whether in planes or thickness is intended use and is given little patentable weight

as it does not does not differentiate the claimed structure from a prior art structure satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). See further col. 12, lines 40-68.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,407,763 to Yamaguchi et al.

9. Yamaguchi essentially teaches the claimed invention above.

10. Yamaguchi does not explicitly teach the electric resistance relationship as recited in claim 4 or teach the thickness of the low-resistance layer is to be 1 microns or less as recited in claim 5. However, because the same materials are employed, one having ordinary skill in the art would expect the same relationship to occur. Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. See MPEP 2106. Further regarding what the thickness is to be set at 1 microns or less, if the thickness is l micron or less, it would have been obvious to one having ordinary skill in the art to adjust the thickness of the low-resistance layer since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. Thickness effects the conductivity within the layer.

11. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,315,061 to Suzuki et al.

12. Suzuki essentially teaches the claimed invention above.

13. Suzuki does not explicitly teach the electric resistance relationship as recited in claim 4 or teach the thickness of the low-resistance layer is to be 1 microns or less as recited in claim 5. However, because the same materials are employed, one having ordinary skill in the art would expect the same relationship to occur. Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. See MPEP 2106. Further regarding what the thickness is to be set at 1 microns or less, if the thickness is 1 micron or less, it would have been obvious to one having ordinary skill in the art to adjust the thickness of the low-resistance layer since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. Thickness effects the conductivity within the layer.

References of Interest

The remaining references listed on form(s) 892 and/or 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the rejection above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tamra L. Dicus
Examiner
Art Unit 1774

August 24, 2005

RENA DYE
SUPERVISORY PATENT EXAMINER
A.U. 1774 9/2/05